

SPECIAL REPORT: MANAGING RISKS IN JUVENILE JUSTICE

**IOWA DEPARTMENT OF HUMAN RIGHTS
DIVISION OF CRIMINAL AND JUVENILE JUSTICE PLANNING AND
STATISTICAL ANALYSIS CENTER**

JANUARY, 1999

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ACKNOWLEDGMENTS

I would like to thank Pat Hendrickson, the Chief Juvenile Court Officer for the 7th Judicial District and her staff for all the assistance and information that they provided to this project. I would like to acknowledge and thank Richard Moore for allowing me to conduct this research study and use the data for my Ph.D. dissertation. I would also like to thank Lettie Prell for her editorial and statistical assistance.

EXECUTIVE SUMMARY

This report describes a study of juveniles who were subjected to a risk assessment instrument which was used in the 7th judicial district for making decisions at the dispositional stage of juvenile court case processing. One of the primary purposes of the research was to validate the risk assessment instrument and describe the instrument's ability to provide meaningful information about adjudicated delinquents' risk of re-referral to juvenile court. The risk assessment instrument was also utilized to document the allocation of juvenile court dispositions for every adjudicated delinquent in the judicial district during the study period. The study sample includes 133 completed risk assessments which corresponds to 128 juveniles who received a disposition in the 7th judicial district between March 19, 1996 and September 30, 1996.

The study's findings indicate that the risk assessment instrument was found to be statistically significant with a mean cost rating score of .342. What this means is that the dispositional instrument offers a 34.2 percent improvement over chance in the prediction of recidivism with a sample of 133 cases. Therefore this instrument appears to provide a useful and empirically valid way of categorizing offenders to make dispositional decisions. These findings also indicate that the dispositional risk assessment instrument which was borrowed, with no changes to the items or scoring scheme, from an instrument designed for use at juvenile court intake continues to be statistically valid.

INTRODUCTION

This report describes a study of juveniles who were subjected to a risk assessment instrument which was used in the 7th judicial district for making decisions at the dispositional stage of juvenile court case processing. The study was originally conducted to provide data for a Ph.D. dissertation entitled "Managing risks in juvenile justice." One of primary purposes of the research was to validate the risk assessment instrument and describe the instrument's ability to provide meaningful information about adjudicated delinquents' risk of re-referral to juvenile court. In addition, the study also examined the use of risk assessment scores to assign or utilize dispositional resources (e.g., higher scores received more intrusive dispositions). This report is intended to highlight some of the relevant parts of the dissertation study that specifically relate to the validation of the dispositional risk assessment.

METHODOLOGY

Population and Sampling

The population of this study included the total number of risk assessments (n=133) conducted between March 19, 1996 and September 30, 1996 in the 7th Judicial District in Iowa. The risk assessment instrument was utilized to document the allocation of juvenile court dispositions for every adjudicated delinquent in the judicial district during the study period. Each risk assessment represented a separate disposition, but not necessarily a different juvenile. Five of the juveniles included in the study sample received more than one disposition during the assessment period. Each of these five juveniles committed two or more offenses during the six month assessment period.

The 7th Judicial District is one of eight judicial districts in Iowa and includes five counties (Cedar, Clinton, Jackson, Muscatine, and Scott). The study's findings showed that 76.0 percent of the assessments came from Scott, 10.5 percent came from Muscatine, 9.0 percent came from Jackson, and 4.5 percent came from Clinton. While all 5 counties were included in the assessment period, none of the juvenile court dispositions occurred in Cedar County due to a small overall population and the low numbers of juveniles involved in the juvenile court there.

The Dispositional Risk Assessment Instrument

The data for this study were obtained from several different sources including a constructed risk assessment instrument and four different automated information systems. The data collection tasks were divided into two different phases: the baseline and follow-up data collection. The baseline phase refers to the collection of dispositional risk assessment information from the assessment forms. During this phase, data were also collected from the Iowa Court Information System (ICIS) to augment demographic and offense information not contained on the risk assessment form, such as: county of residence, race, date of birth, the juvenile court officer's identification number, referral offense, and the various sanctions associated with specific cases. The follow-up data collection phase occurred approximately nine months after the baseline data collection was completed, and it was at this point that the recidivism and outcome information were collected.

The dispositional risk assessment instrument utilized in this study was originally designed as an assessment tool for use by juvenile court officers (JCOs) at the intake stage of juvenile court case processing (Huff and Prell, 1996). At the request of the Governor of Iowa, a work group (i.e., Chief Juvenile Court Officers, the State Court Administrator's Office, the Division of Criminal and Juvenile Justice Planning, and outside technical advisors) was formed to assist with the strategic planning of assessment methods that could provide

greater validity, structure, and consistency to the assessment and decision making process.

The work group explored a variety of issues, including: the type of instrument that would be most useful to line staff, the most appropriate stage or stages of juvenile court case processing at which to design an instrument, how to construct the instrument and a number of other related issues. In resolving these issues a number of activities were undertaken (e.g., exploration of existing risk assessments validated in other jurisdictions, examining relevant juvenile justice practices, obtaining input from juvenile court officers). Based on the information obtained, the work group decided that it would be most beneficial to design an original instrument for use during the intake stage of juvenile court case processing.

Working with the eight Chief Juvenile Court Officers and their staffs, the Iowa Division of Criminal and Juvenile Justice Planning identified a number of assessment criteria that were examined for their predictability (see Appendix A). A one month test period was selected and then implemented during mid-October through mid-November of 1994. A total of 1,173 useable risk assessments were completed by juvenile court officers state-wide. Approximately eight months later, follow-up data regarding re-offending were collected.

Upon the completion of the data collection period, a number of bivariate (e.g., frequencies, crosstabulations, Pearson's correlation coefficients) and multivariate (e.g., logistic regression) statistical procedures were employed to identify the final risk assessment items and develop the appropriate risk categories. The finalized instrument included six risk items, four selected demographic variables (juvenile's name, sex, disposition date, and the JCO's name), the scoring matrix, preferred recommendations, actual recommendations, reasons, and disposition ordered by the court (see Appendix B).

Once the final risk assessment items were identified, various test instruments and scoring schemes were devised. Risk categories were created by examining recidivism rates of individual risk scores. The test instruments

were then analyzed for effectiveness utilizing mean cost rating (MCR). The MCR statistic allows a researcher to assess the effectiveness of a risk assessment instrument by weighting the costs of assessing cases incorrectly at each risk level with the benefits of assessing risk correctly at each risk level in regards to a third factor, in this case re-referral for an additional offense (Berkson, 1947). The MCR score for the final instrument was .364, which was above Fischer's rule of thumb, "for a device to show any utility for screening purposes, it must demonstrate a value of MCR of at least .250 and a value of at least .350 to significantly improve on existing judgments (Fischer, 1985: 10)."

During the analysis phase of this research project, a number of alternative risk assessments were explored before one was identified which appeared to achieve maximum predictive efficiency. Two control variables, race and sex, were examined with regards to equity issues pertaining to the risk assessment instrument's ability to predict risk. Initially these two variables were left out of the scoring of the instrument. During the process of finalizing the instrument and assigning the weights to the factors, it was decided to examine the effects that these variables had upon the predictive accuracy of the instrument. After running a number of iterations of the instrument while testing various ways in which to handle race (e.g., leave it in, eliminate it, assign weights for whites and non-whites) it was concluded that the instrument was more predictive with race left out of the scoring. For sex, however, it was discovered that females in the medium low, medium high and high risk categories were being over assessed; that is, females' recidivism rates in these categories were lower than those of boys. Therefore, it was decided to adjust for sex in the scoring of the risk assessment. The first reason was that it would ensure sex equity in selecting appropriate dispositions for juveniles based on objective risk criteria. It was hoped that this adjustment would allow both males and females to receive similar dispositions based on their risk. Without this change, some females would potentially have incorrectly received more serious dispositions than

males. The second reason for the adjustment was that it improved the predictive validity of the entire risk assessment.

The Chief Juvenile Court Officer (Chief JCO) in the 7th judicial district adapted this finalized risk assessment instrument for use at a later stage than it was originally intended. The Chief JCO's purpose of employing this assessment instrument at the dispositional stage was to assess the decision making process of her staff at this point in the system as well as to assess the utilization of community and state resources in making recommendations to the court regarding a juvenile's disposition.

The use of the instrument later in the system prompted two primary concerns with the implementation of the instrument for purposes other than it was intended. The first concern was that the number of juveniles who received a juvenile court disposition was much lower than the number of juveniles who completed the intake stage. The second concern was that most of the juveniles who received a juvenile court disposition had a higher frequency and seriousness of offending as well as a higher propensity for the use of violence compared to those juveniles who completed the intake stage, but were then funneled out of the system with a deferred sentence or an informal adjustment. These two concerns with the utilization of the risk assessment at the dispositional stage led to the desire to conduct a validation of the instrument at this stage of the juvenile court system. The risk assessment instrument utilized in this study is referred to as the dispositional risk assessment instrument and was incorporated without any changes to the assessment items or the scoring mechanism.

The dispositional risk assessment instrument utilized in this study and the intake risk assessment instrument consisted of two major steps which the JCOs completed: First, they added the scores for the first four items (number of current felonies, prior crimes against persons, peer relationships, and school suspensions). If the score was zero the offender was automatically determined to be a low risk. If the score was greater than zero the next step was completed.

Second, the JCOs added the score from the first step with the scores of the two additional items (age at first arrest and drug use) and then identified the offender's overall risk level. The dispositional risk assessment instrument included a third step which asked the JCOs to record their preferred and actual recommendations as well as the court ordered disposition.

The Chief JCO provided each of the JCOs in this judicial district with a guideline to use in recommending dispositions (see Table 1). The Chief JCO allowed her staff to indicate their ideal or preferred recommendations and their actual recommendations to the juvenile court. In situations where the JCO's recommendations were different than these guidelines, the JCO was allowed to state reasons for this difference. Ultimately it was the juvenile court officer's recommendation that was referred to the court. Based on these guidelines it was found that 57.1 percent of the actual recommendations made by the JCOs matched the guidelines recommendations. In addition, 21.1 percent of the JCO's recommendations were below the guideline and 15.8 percent were above it.

Table 1: Disposition guideline

Risk Scores	Suggested Dispositions
1-4 (Low Risk)	Regular Probation with Curfew
5-8 (Medium Risk)	Intensive Probation Tracking Day Treatment Residential
9 or more (High Risk)	Structured or Secure Residential Training School

Most of the reasons given for departure from the guidelines were related to "stakes" (e.g., prior offense history, aggressive behavior, runaway tendencies) or other special reasons (e.g., first time involvement, attitude). In 6.0 percent of

the decisions it was unknown as to whether they matched or not. For the most part the juvenile court judges followed the recommendations made by the JCOs. In those few cases where the judges actual disposition was different than the JCOs recommendations, there were two main reasons given -- financial limitations and placement caps due to bed limitations. In many instances the JCOs noted, prior to their recommendation to the juvenile court, that either one or both of these factors were a part of the decision.

Data Collection

Information pertaining to the juvenile delinquents involved in this study were subject to confidentiality laws pursuant to Iowa Code 232. It was deemed necessary to obtain the actual risk assessment forms with all identifiers in place to facilitate the searching and gathering of information from four automated information systems. Access to the data was granted by the Chief JCO in the 7th Judicial District and from the Administrator of the Iowa Division of Criminal and Juvenile Justice Planning pursuant to Iowa Code subsection 216A.136. In addition, the methodology, specifically in regards to the handling of the sample population, was approved by the Human Subjects Committee for Research Projects at Iowa State University.

As mentioned above, the data for the baseline data collection were obtained primarily from two different sources, the dispositional risk assessment forms and the Iowa Court Information System (ICIS). The Iowa Court Information System (ICIS) is a management information system developed for used by both the juvenile and adult courts and was maintained by the State Court Administrator's Office. The information available in ICIS includes: fiscal, personnel, case management and other data elements regarding services provided by court personnel. This system was designed for the main purpose of tracking juvenile court decisions involving those youth under the jurisdiction of the juvenile court. During the study period, the hardware and software for this

system were operational in only some of the areas of the state. The 7th Judicial District was one of only two districts where the juvenile component of ICIS was fully operational. The data from this district were entered into ICIS by the JCOs which is not the case in the other judicial districts.

Data from ICIS was collected both on site and at the ICIS main office located in Des Moines, Iowa. The risk assessment data were entered into a database first, with the follow-up data being entered after the study period had ended which was June 30, 1997. This period of time allowed for at least 9 months of time within which the juvenile could have recidivated. Most of the follow-up data regarding the cases handled outside of Scott County was provided by the JCOs. However, the data were ultimately checked against ICIS and three other databases. To augment recidivism data for those individuals who had turned 18 years old, three additional information systems were accessed -- the Criminal History Records, the Iowa Community Based Corrections Database, and the Adult Corrections Institution database.

Iowa's Computerized Criminal History (CCH) Records detail the history of an individual's arrests, convictions and incarcerations in state operated institutions. Under Iowa law, if an individual is not convicted of an offense, the arrest must be removed from the individual's CCH record. Therefore, these records will only reflect those arrests where the individual was convicted, or arrests where court action on the charges was still pending. Arrests for "minor" offenses (simple misdemeanors, city ordinance violations and minor traffic charges) were not required to be reported in CCH records (Hudik, 1991 and 1996). Given these shortcomings, two other databases containing information relative to criminal activity were queried to supplement the data in the CCH database in order to portray a more complete picture of an individual's juvenile's criminal activity.

The Iowa Community Based Corrections Database (ICBC) contains data relative to those individuals who have been placed into a formal probation program overseen by community based corrections personnel. This database

parallels some information contained in CCH records, however it contained additional data relative to the subject's probation, particularly in the area of probation revocations and other information on arrests and convictions not shown in CCH records. It also contains risk assessment and reassessment data on each individual.

The Iowa Adult Corrections Information System (ICIS) contains data on individuals who were ordered by the court to be incarcerated in an institution operated by the Department of Corrections. The data fields in this database detail, in part, sentencing data as ordered by the court, the offense or offenses for which the individual was incarcerated, admission and discharge dates and other data relative to rehabilitative programs in which the individual participated. This database shows conviction and incarceration information not contained in CCH records.

Characteristics of the Sample

The sample consisted of juvenile offenders between the ages of 9 and 18 at the time of their juvenile court disposition. The mean age was 15.6 (see Table 2). Juveniles who had reached their 18th birthday may have still been under the juvenile court's jurisdiction due to an Iowa statute that allows an offender to have their probation extended until their 19th birthday. An examination of the recidivism rates by age, showed that the juvenile offenders with the lowest rate of recidivism were those who were 11 years of age and under (see Table 3). Only one age group (14 to 15 year olds) was above the base rate of recidivism which was 57.1 percent. The base rate refers to the mean rate at which the overall sample was re-referred. Approximately 77.4 percent of the sample was male and 22.6 percent was female (see Table 2). However, as Table 3 shows, the percent of males who recidivated was only slightly higher than the percent of females.

As Table 2 shows, 62.4 percent of the study population were White, non-Hispanic, 30.8 percent were African-American, 4.5 percent were Hispanic, and

2.3 percent were defined as other (i.e., Native American, Asian, and mixed). The data pertaining to recidivism, showed that African-Americans had the highest percent (73.1 percent) of juvenile offenders who recidivated, compared to the next highest group (whites) in which just slightly over half of the juvenile offenders recidivated (see Table 3). The percent of Hispanics who recidivated was similar to that for Whites, while the rate for the other racial / ethnic group was somewhat lower at 33.3 percent.

The total number of offenses that the juveniles had been charged with ranged between 1 and 11, with an average of 1.9 or almost 2 charges per case that received a court ordered disposition. The most serious offense a juvenile was charged with was examined both in terms of its level of severity (e.g., Class A Felony, Class B Felony, Class C Felony) and its type (e.g. person or non-person crime). The findings showed that a majority of the offenses were non-person offenses (e.g., theft) and that there was a fairly good dispersion among the various severity levels (see Table 4).

Table 2: Demographics of study sample^a

Demographic Characteristics	Number	Percentage
Age^b		
11 and under	5	3.8
12-13	12	9.0
14-15	33	24.8
16-17	62	46.6
18 and over	19	14.2
Sex		
Male	103	77.4
Female	30	22.6
Race		
White, Non-Hispanic	83	62.4
African-American	41	30.8
Hispanic	6	4.5

Other	3	2.3
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^a N = 133
^b Two cases were missing dates of birth.

Juvenile offenders who received a disposition on a felony offense recidivated at 61.8 percent, while those who received a disposition on a misdemeanor offense recidivated at 51.3 percent. Table 5 shows that juveniles who received a disposition for aggravated and serious misdemeanors were less likely than those in the other offense levels to have recidivated (excluding Class A Felonies and those few cases where the offense was unknown).

Table 3: Demographics by recidivism rates^a

Demographics	Number of Cases	Percent of Total Cases	Recidivism Rates
Age			
11 and under	5	3.75	40.00
12 – 13	12	9.02	50.00
14 – 15	33	24.81	72.72
16 – 17	62	46.62	56.45
18 and over	19	14.28	47.36
Sex			
Males	103	77.44	59.22
Females	30	22.56	50.00
Race			
White, non-Hispanic	83	62.40	50.60
African-American	41	30.82	73.17
Hispanic	6	4.51	50.00
Other	3	2.25	33.33

^a N = 133

Table 4: Most serious offense by level and type of severity^a

Offense Class	Against Person		Not Against Person	
	Number	Percent	Number	Percent
Class A Felony	0	0.0	1	1.0
Class B Felony	0	0.0	1	1.0
Class C Felony	5	21.7	10	9.6
Class D Felony	1	4.3	37	35.6
Aggravated Misdemeanor	4	17.4	13	12.5
Serious Misdemeanor	4	17.4	31	29.8
Simple Misdemeanor	9	39.1	11	10.6
Total ^b	23	18.1	104	81.9

^a N = 133

^b Missing Cases = 6

Table 5: Offense level by recidivism rates^a

Offense Level	Number of Cases	Percent of Total Cases	Recidivism Rates
Class A Felony	1	.75	0.00
Class B Felony	1	.75	100.00
Class C Felony	15	11.28	66.67
Class D Felony	38	28.57	60.53
Aggravated Misdemeanor	17	12.78	41.18
Serious Misdemeanor	35	26.32	54.29
Simple	20	15.04	70.00
Unknown	6	4.51	33.33

^a N = 133

VALIDATION RESULTS

The dispositional risk assessment instrument was borrowed from one that had originally been created for use at juvenile court intake. There were two primary concerns associated with using a risk assessment instrument at a stage of juvenile court case processing other than that for which it was intended. The first concern relates to the fact that most of the juveniles who received a juvenile court disposition potentially have higher rates of recidivism, as well as a higher propensity for the use of violence compared to those at the intake stage. It is argued that the use of an instrument at a later stage than which it was intended could affect the integrity of the instrument by not adequately accounting for the severity and chronicity of the juvenile offenders (Clear, 1988).

Second, the number of juveniles who received a juvenile court disposition is lower than the number of juveniles who complete the intake stage. Therefore, we should expect that the rate of recidivism at these two stages to be different because of the selection process in juvenile court; the more serious cases are more likely to continue in the system. These two concerns pointed to the necessity to validate the dispositional instrument.

Since the dispositional risk assessment instrument was based on a previously validated instrument it seemed appropriate to compare the two scales in terms of validity scoring. In the following discussion, the original instrument is referred to as the intake instrument, while the study instrument will continue to be referred to as the dispositional instrument.

Face Validity

In examining validity issues it seemed appropriate to examine the salient factor scores (SFS) which were used in assessing the U.S. Parole Board's risk assessment instrument (Hoffman and Beck, 1974, 1976, 1980, 1985). The salient factor score was developed as a method of categorizing risks and predicting recidivism. In viewing the SFS scores presented in Table 6, it should be kept in mind that the SFS scores (i.e., 0, 1, 2-4, 5-8, 9-12) correspond to the risk levels (i.e., low, medium-low, medium-high, high, and very high) developed for use with both the dispositional and intake risk assessment instruments.

The recidivism rates in the highest classification (.71) for the intake instrument were 5 times higher than in the lowest classification (.13). A similar finding was found for the dispositional instrument, except that the change from the highest classification (.75) was somewhat lower (2.5 times) than the lowest

Table 6: Salient factor scores (SFS) for the juvenile dispositional and intake risk assessment instruments

SFS Score	Dispositional		Intake	
	Number	Recidivism Rates	Number	Recidivism Rates
0	11	.27	387	.13
1	12	.42	299	.17
2-4	36	.47	302	.35
5-8	62	.67	171	.44
9-12	12	.75	14	.71
Total	133	.57	1,173	.25

classification (.27). Although the overall recidivism rates were different for the dispositional (.57) and Intake (.25) risk assessment instruments, both instruments appeared to have face validity in that the lowest categories of risk were below the base rate of recidivism (i.e., the average recidivism rate for the sample population) and the highest categories were above it. In addition, there was an incremental increase, from the lowest to highest classifications, found

among the SFS scores for both instruments. These findings tended to indicate that the risk levels did appropriately account for recidivism.

Internal Validity

To further examine the validity of the dispositional risk assessment instrument, a statistical technique referred to as “mean cost rating” (MCR) was utilized. The intake instrument was found to be valid using both Fischer’s general rule of thumb that risk assessments need to obtain a score of at least .250 to be statistically valid and comparisons with other validated instruments that show scores between .250 and .400 (e.g., Hoffman and Adelberg, 1980; Mande, 1988). When the intake instrument was designed, it was found that separate scoring by sex improved the MCR score from .354 to .364; both were significant at the .001 level. However, the data analyses did not indicate the need to make a similar adjustment for race (Huff and Prell, 1996). In examining the validity of the dispositional assessment, it seemed necessary to examine the impact of sex on the instrument, so both risk assessment instruments were examined with and without an adjustment for sex.

The average or mean recidivism rates for both instruments are consistent with the notion that predicted recidivism will be lower at intake than at disposition. Twice as many of the juvenile offenders recidivated in the dispositional sample as recidivated in the intake sample. In addition to the recidivism rates, the sample populations for both instruments show that there was indeed a smaller number of offenders who received a disposition than completed intake. As previously mentioned, the 133 offenders in this study represented the total number of juvenile offenders, from one of Iowa’s eight judicial districts, who received a disposition within a seven month period in 1996, while the total number of juveniles who completed the intake process in the same district during a one month period in 1994 was 184.

The MCR score (.308, $p \leq .001$) obtained for the dispositional instrument, shows that it is statistically valid. Even though the magnitude of the MCR score

for the dispositional instrument was somewhat lower than that found for the intake instrument, it was still well within the accepted range of scores. This finding tends to contradict the notion, that has become popular in the literature, that instruments designed at one stage of juvenile court case processing should not be adopted at a later stage.

It was found that when an adjustment in scoring was made for females, the MCR scores for both instruments improved. In the original versions of the dispositional and intake instruments, females and males were scored the same (i.e., low = 0, medium low = 1, medium high = 2 to 4, high = 5 to 8, and very high = 9 or more). In the adjusted version of the instruments, males continued to be scored the same, but females were scored separately (low = 0, medium low = 1 to 4, medium high = 5, high = 6 to 8, very high = 9 or more).

The adjustment allows females to be classified in a more equitable manner by shifting offenders, who in actuality had lower rates of recidivism, from the higher categories of risk to the middle and lower ones. The results of this adjustment can be seen in Tables 7 and 8, which show the changes that occurred among the risk categories of the dispositional instrument for females. Even with this adjustment, the medium high and lower categories of risk still contained juvenile offenders who had recidivism rates below the base rate and the high and very high categories continued to have juvenile offenders with recidivism rates above the base rate. The two highest categories of risk had

Table 7: Risk levels and recidivism rates with no adjustment for sex

Risk Level	Males ^a		Females ^b		Combined ^c	
	Number	Recidivism Rates	Number	Recidivism Rates	Number	Recidivism Rates
Low	9	33.33	2	0.00	11	27.27
Medium Low	10	50.00	2	0.00	12	41.66
Medium High	28	50.00	8	37.50	36	47.22
High	45	68.88	17	64.70	62	67.74
Very High	11	72.72	1	100.00	12	75.00

Totals	103	59.22	30	50.00	133	57.14
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^a MCR = .264, $p < .05$

^b MCR = .480, $p < .01$

^c MCR = .308, $p < .001$

even higher rates of recidivism after the adjustment than before it had been made. These findings, along with the fact that the risk categories contain juvenile offenders whose actual recidivism increased incrementally among the levels, provides further support that the dispositional scale appropriately differentiates juvenile offenders in terms of risk.

**Table 8: Risk levels and recidivism rates
with adjustment for sex**

Risk Level	Males ^a		Females ^b		Combined ^c	
	Number	Recidivism Rates	Number	Recidivism Rates	Number	Recidivism Rates
Low	9	33.33	2	0.00	11	27.27
Medium	10	50.00	10	30.00	20	40.00
Low						
Medium	28	50.00	10	50.00	38	50.00
High						
High	45	68.88	7	85.71	52	71.15
Very	11	72.72	1	100.00	12	75.00
High						
Totals	103	59.22	30	50.00	133	57.14

^a MCR = .264, $p < .05$

^b MCR = .564, $p < .001$

^c MCR = .342, $p < .001$

Since the findings indicated that separate scoring for females was more appropriate than scoring them the same as males, an examination of males scored as females was conducted to further explore the Gottfredson's (1997b) suggestion that all individuals in the sample should be treated as if they were the same (e.g., white males). However, when males were scored the same as females, the MCR score for males dropped from .264 to .243 at the .05 level of significance. This finding indicates that the adjusted version of the scale that scores males and females separately, more appropriately classifies both male and female offenders in terms of risk of recidivism than the unadjusted scale.

The findings pertaining to MCR scores indicated that the dispositional version of the risk assessment instrument offers a 34.2 percent improvement over chance in the prediction of recidivism with a sample of 133 cases, while the intake instrument offers a 36.4 percent improvement over chance in the prediction of re-referral with a sample of 1,173 cases. In addition to the MCR score, the rated accuracy of the dispositional study increased slightly for both the dispositional (66.1 percent to 67.8 percent) and the intake instruments (75.7 percent to 76.1 percent).

CONCLUSIONS

There were two major findings pertaining to the validation testing of the dispositional risk assessment instrument obtained from the data. First, the dispositional risk assessment instrument was found to be valid within the currently accepted parameters. The mean cost rating (MCR) score for the adjusted version of the dispositional risk assessment instrument was .342, which was well above Fisher's standard (Fischer, 1985) of .250 and within the range of accepted scores (.250 to .400) from other research (Hoffman, 1980 and Mande, 1988).

The dispositional risk assessment instrument was found to provide a useful and empirically valid way of categorizing offenders to both the JCOs and the juvenile court in making decisions pertaining to an offender's disposition or sentence. Although a comparison of clinical and actuarial decisions was beyond the scope of this study, the findings from this study along with impressionistic information from the Chief JCO indicates that the dispositional risk assessment instrument provides the JCOs with a tool that allows for a more efficient and effective handling of offenders than previously available. The ongoing use of such an instrument may allow juvenile justice officials, researchers, policy makers and others the ability to systematically document, track and evaluate the JCO's decision making process (i.e., the match between offenders and

dispositions). This may prove to be especially useful as states and local jurisdictions continue to develop and implement ways of providing the most intrusive (and often most expensive) interventions and services only to the most appropriate juvenile offenders (e.g., highest risk).

Concern about adopting a risk assessment instrument at a stage of the juvenile court case processing other than it was originally intended was found to be unwarranted. The larger volume of offenders, along with the greater range of types of offenders at the intake stage, allowed the instrument to maintain integrity at a later stage of court processing. It is also possible that other risk items not included in this study could enhance the MCR scores at the dispositional stage even further, however this determination is beyond the scope of this study. Further study would also be needed to determine whether an instrument developed for use at a later stage and then implemented at the “front end” could be still be valid. It is possible that the ability to go from an earlier stage to a later stage may not be valid when the process is reversed (i.e., going from a later stage to an earlier stage).

Along with the concern by researchers (Clear, 1988) that risk assessment instruments are not transferable among the various juvenile court case processing stages, is the warning not to adopt another jurisdictions’ instrument without first accounting for local policies and practices. However, this concern was not considered to be an issue in this study, since the judicial district under study was part of the original design process during the development, testing, and validation phases of the intake risk assessment. In other words, the practices and policies of this district were accounted for when the original validation was completed.

The second major finding pertaining to the validation of the dispositional risk assessment instrument was that the MCR score improved from .308 to .342 when an adjustment for sex was made. This finding indicates that it is better to have separate scoring for males and females.

Gottfredson and Gottfredson (1997b) argued that the best way of “meliorating the effect of invidious factors” was to leave the variables in since they are typically highly correlated with the other factors in the scale and treat all of the subjects the same. This part of their argument, to leave “invidious variables” (e.g., race and sex) in the model, seems to be supported by the finding in this study that the MCR scores improved when an adjustment for sex was made. However, the finding that separate scoring for males and females improved MCR scores, contradicts Gottfredson and Gottfredson’s (1997b) suggestion that researchers should treat all subjects in the sample as if they were the same (e.g., white males).

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APPENDIX A: RISK ASSESSMENT TEST INSTRUMENT
RISK ASSESSMENT TEST INSTRUMENT

Worker_____ County_____

District_____ Date of Interview____/____/____ Client Name_____

Date of Birth____/____/____ Sex_____ Race_____ Crime(s) _____

1. Current Offense Type (check one): Crime Against Persons [☐] Crimes Not Against Persons [☐]

2. Number of Current Offense(s) (indicate number of each): Felony_____ Aggravated Misdemeanor_____ Serious Misdemeanor_____ Simple Misdemeanor_____

3. Age at First Arrest:_____

4. Prior Arrests/Adjudications (indicate number of each):

	Arrests	Adjudications
Felony	_____	_____
Aggravated Misdemeanor	_____	_____
Serious Misdemeanor	_____	_____
Simple Misdemeanor	_____	_____

5. Prior Crimes Against Persons: Yes [☐] No [☐]

6. Supervision History (check one): None [☐] Re-offended after previous supervision ended [☐] Re-offended during current supervision [☐]

7. Service History (check All that apply):

[<input type="checkbox"/>] None	[<input type="checkbox"/>] Inpatient Evaluation	[<input type="checkbox"/>] Mental Health Commitment
[<input type="checkbox"/>] In-Home/Community Based	[<input type="checkbox"/>] Residential	[<input type="checkbox"/>] Training School/Locked Facility
[<input type="checkbox"/>] Shelter/Foster Care	[<input type="checkbox"/>] Waived to Adult Court	

8. Substance Use/Abuse (check one response in each column):

	Alcohol	Drugs
No Evidence of use/abuse	[<input type="checkbox"/>]	[<input type="checkbox"/>]
Experimentation	[<input type="checkbox"/>]	[<input type="checkbox"/>]
Frequent use/abuse	[<input type="checkbox"/>]	[<input type="checkbox"/>]

- Unknown ☐ ☐
9. Runaways (check one response in each column):
- | | From Home | From Placement |
|-------------------------|--------------------------|--------------------------|
| None | <input type="checkbox"/> | <input type="checkbox"/> |
| Few runs | <input type="checkbox"/> | <input type="checkbox"/> |
| Frequent runs (<3 days) | <input type="checkbox"/> | <input type="checkbox"/> |
| Frequent runs (>3 days) | <input type="checkbox"/> | <input type="checkbox"/> |
10. Peer Relationships (check one): Seeks and provide good support/influence on peers ☐ Fails to avoid negative influences ☐ identifies with others who exhibit strong anti-social behavior ☐
11. Gang Affiliation (check one): None ☐ Peripheral ☐ Full-Involvement ☐
12. Attitude (check one): Motivated to change/accepts responsibility ☐
Uncooperative/defensive ☐ Depressed ☐ Negative/defiant/not motivated to change ☐
13. Level of Parental Control (check one): Appropriate parental control ☐
Parental control problems ☐
14. Current School (check one): Regular ☐ Special Education ☐
Alternative ☐ None ☐
15. School Status (check one): Attending Regularly/Graduated/GED ☐ Not Participating/Attending ☐ Dropped Out/Expelled ☐
16. School Discipline Problems: None ☐ Minor ☐ Moderate ☐ Severe ☐
17. Truancy: None ☐ Occasional ☐ Frequent ☐
18. School Suspensions: None ☐ Once ☐ 2 or 3 ☐ 4 or more time ☐
19. Youth Currently Employed Yes ☐ No ☐
20. Family History (check all that apply): None ☐ Physical Abuse of Youth ☐
Sexual Abuse of Youth ☐ Neglect of Youth ☐ Parent/Sibling Alcohol Abuse ☐ Parent/Sibling Drug Abuse ☐ Parent/Sibling Criminal History ☐

APPENDIX B: IOWA JUVENILE COURT INTAKE RISK ASSESSMENT

IOWA JUVENILE COURT INTAKE RISK ASSESSMENT

Client Name/ID_____ Sex_____ Intake Date____/____/____

Offenses This Referral_____

STEP 1: COMPLETE ITEMS 1-4 Score

1. NUMBER OF CURRENT FELONIES (this referral)
 - None or one..... 0
 - Two..... 2
 - Three or more..... 3
2. PRIOR CRIMES AGAINST PERSONS
 - No..... 0
 - Yes..... 3
3. PEER RELATIONSHIPS
 - Seeks and provides good support and influence on peers..... 0
 - Fails to avoid negative influences..... 1
 - Identifies with others who exhibit strong anti-social behavior..... 2
4. SCHOOL SUSPENSIONS (out-of-school within the past 12 months)
 - None or one..... 0
 - Two or more..... 2

STEP 2: ADD ITEMS 1-4 AND ENTER RESULT HERE..... _____

IF SUBTOTAL ABOVE EQUALS ZERO, YOU ARE DONE.

IF SUBTOTAL ABOVE IS GREATER THAN ZERO, COMPLETE A-D:

- A. AGE AT FIRST ARREST
 - 12 or older..... 0
 - 11 or younger..... 1
- B. DRUG USE/ABUSE (do not count alcohol)
 - No or unknown..... 0
 - Yes..... 1
- C. ADD SUBTOTAL SCORE WITH ITEM A AND B
FOR STEP 2 SCORE..... _____

D. DETERMINE RISK LEVEL (circle appropriate category below)

FOR BOYS		FOR GIRLS	
Step 2 Score	Risk Level	Step 2 Score	Risk Level
1	Medium Low	1-4	Medium Low
2-4	Medium High	5	Medium High
5-8	High	6-8	High
9+	Very High	9+	Very High

Preferred Recommendations:

Actual Recommendations:

Reasons for Differing from Disposition Guidelines:

Disposition Ordered by the Court: